

Monitoring COVID-19 Impacts on Households in Ethiopia

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COVID-19 AND THE RURAL ECONOMY: EVIDENCE FROM HIGH FREQUENCY PHONE SURVEYS

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INTRODUCTION



The outbreak of the COVID-19 pandemic has had serious health and social impacts in Ethiopia. As of January 2021, over 128,000 COVID-19 confirmed cases, with over 2,000 fatalities, were registered, with a sharp acceleration in recent months. These figures are the second largest in absolute terms among sub-Saharan African countries, after South Africa, though the caseload and mortality as a percentage of the population are near the median for the overall region.

The COVID-19 pandemic and its economic and social effects on households have created an urgent need for timely data to help monitor and mitigate the social and economic impacts of the crisis and protect the welfare of the least well-off Ethiopians. To track how the pandemic is affecting Ethiopia's economy and its population and to inform interventions and policy responses, the World Bank is conducting a high-frequency phone survey of households (HFPS-HH). The HFPS-HH tracks households with access to a phone, with selected respondents, typically household heads, completing phone-based interviews every month.

In Ethiopia, nine rounds of data have been collected between April 2020 and January 2021. A series of briefs on the impact of the pandemic has thus far been published using the HFPS-HH¹. We have found that COVID-19 hit Ethiopian households hardest during the early months of the pandemic. Overtime, the effects, particularly with respect to employment indicators, have subsided, indicating a resilient Ethiopian economy. Results of the high-frequency monitoring surveys of households indicate that the COVID-19 pandemic is affecting, among other things, economic activity and households' incomes. The survey results indicate that by April 2020 about half of households had experienced either a reduction or a total loss of income since the viral outbreak. Though fewer households have subsequently reported further income erosion, apparently income losses have not yet bottomed out with 26 percent still reporting a reduction in total household income in November 2020. Employment effects were severe in early months, particularly in urban areas, with 8 percent of respondents losing their jobs at the onset of the pandemic in April 2020. However, employment recovered quickly and by September 2020 had reached pre-COVID levels. Yet, many respondents previously in more stable types of employment now had more vulnerable jobs.

Similar to other countries in the region, Ethiopia has a stark difference in the structure of the labor market in urban and rural areas, which explains diverging outcomes on employment dynamics during the COVID pandemic. In rural areas, where 80 percent of the population resides, the main activity is agriculture with most people allocating their productive employment to farming (growing crops and/or raising livestock). In contrast, people living in urban areas are more likely to work in wage employment and work mainly in services and industry. These stark differences in lifestyles and employment warrant specific analysis to urban and rural areas separately². Given the size of the population living in rural areas and the concentration of farming activities in the rural space, this special topic brief explores the impacts of COVID-19 on the rural economy and narrows in on farming activities undertaken by rural dwellers, separating the analysis between planting activities and raising livestock. Moreover, it examines income losses for households and assistance received by rural households. This survey brief summarizes the results of the first nine rounds of the HFPS-HH, covering the period from April 2020 to January 2021.

SUMMARY OF MAIN MESSAGES



The COVID-19 pandemic had only small effects on farmers in Ethiopia with the majority of households engaged in farming able to continue their normal farming activities following the COVID-19 outbreak.



The few farmers that experienced challenges in their farming activities, reported mobility restrictions at the onset of the COVID-19 pandemic and the lack of affordable seeds and fertilizers as the main constraints to farming normally.



Since the start of the pandemic, one third of households that keep livestock reported a desire to sell. Nevertheless, a fall in livestock prices affected the sales of 40 percent of livestock holders wanting to sell.

¹ <https://www.worldbank.org/en/country/ethiopia/brief/phone-survey-data-monitoring-covid-19-impact-on-firms-and-households-in-ethiopia>

² Labor market impacts of COVID-19 in urban areas were already covered in previously published analyses which can be found on the COVID-19 survey website mentioned in footnote 1.

- ! About half of rural households experienced reductions and losses in total income at the onset of the pandemic with income from farming activities reduced for one in four rural households. Yet, the loss in income and disruptions in agricultural activities can also be attributed to the 2020 locust invasion.
- ! Few rural households received assistance during the COVID-19 pandemic in the form of free food or direct cash transfers. An important source of assistance in rural areas is the Productive Safety Net Program (PSNP), benefitting 8 million people - or 9 percent of the population in rural Ethiopia. Results of the high-frequency survey indicate that 5 percent of rural households participated in the PSNP in April 2020 with a decreasing percentage throughout the pandemic, following the natural PSNP cycle.
- ! About half of rural households in January 2021 expected the output of the current harvesting season to be lower than normal.
- ! A significant share of rural households is food insecure. Households were most affected by food insecurity during the planting season and food insecurity declined slightly in October 2020 during the harvest season.

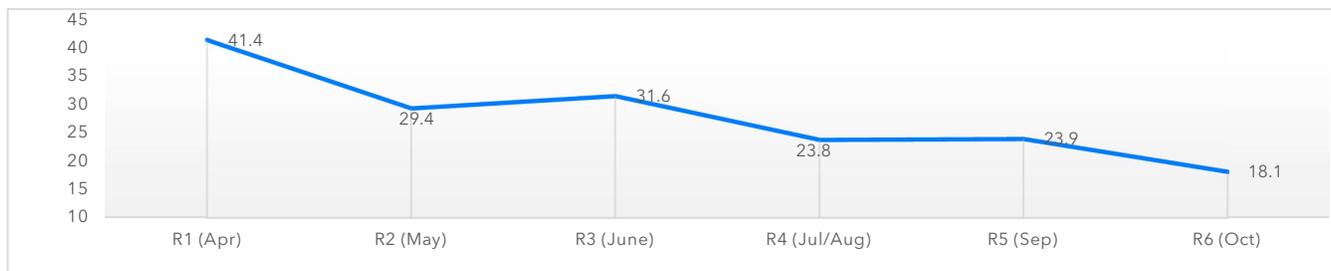
**FARMING
ACTIVITIES
DURING
COVID-19**



The vast majority of rural households is engaged in farming activities in Ethiopia, mainly as small holder farmers. For 83 percent of rural households³, farming was the main means of livelihood over the previous 12 months as of April 2020, followed by nonfarm business (16 percent), wage employment (13 percent), and government assistance (12 percent). While rural households largely depend on farming, urban households tend to have a larger variety of income sources. For almost half of urban households, wage employment was a means of livelihood (47 percent), followed by nonfarm business (31 percent), and farming (24 percent).

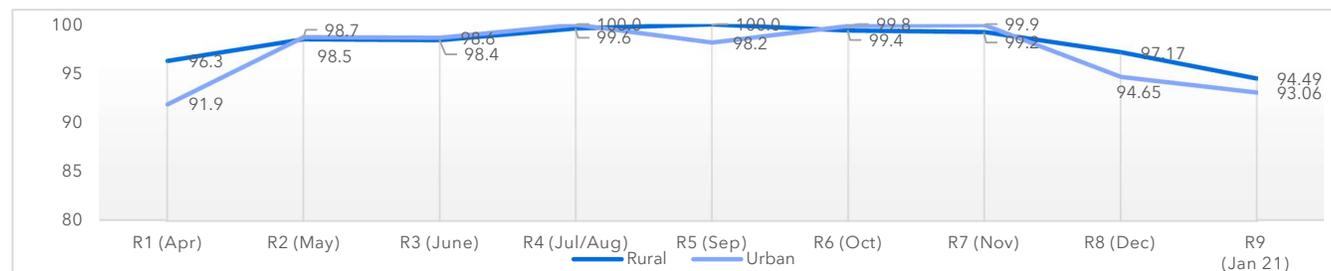
One of the channels through which households are negatively affected by the pandemic and its associated restrictions of movement and assembly is through reduced income. The COVID-19 pandemic affected all sources of household income in rural areas, including from farming activities (i.e., growing crops or raising livestock). One in four rural households reported losses in income from farming at the onset of the pandemic in April 2020. Throughout the pandemic, fewer households reported further income erosion, with income losses from farming bottoming out in October 2020 (Figure 1).

Figure 1: Rural households with reduced income from farming activities, percent



For households engaged in farming activities or raising livestock, COVID-19 does not seem to have had a large effect on performing their farming activities. Just after the COVID-19 outbreak in April 2020, 92 percent of farming households in urban areas and 96 percent in rural areas were able to farm normally (Figure 2). In November 2020, almost all households engaged in farming activities worked as usual. Yet, between December and the start of the new year, a slightly lower proportion reported being able to farm normally (94 percent).

Figure 2: Households that farmed or raised livestock normally in last 4 weeks, percent



³ This compares to 86 percent of rural Ethiopians engaged in farming in 2019 based on the 2018/19 Ethiopia Socioeconomic Survey (ESS), which was used as the sampling frame for the HFPS-HH. The ESS is built on a nationally and regionally representative sample of households in Ethiopia. ESS 2018/19 interviewed 6,770 households in urban and rural areas.

Households that were not able to farm normally (i.e., in agriculture or livestock) reported the advice to stay home, the inability to hire labor, and mobility restrictions as the main challenges to performing their farming activities (Figure 3). Indeed, the early months of the pandemic showed the largest restrictions to the movement of people and goods, leading to challenges for rural households to perform their farming activities. Overtime however, COVID-19 related restrictions on movement eased and other factors, such as weather-related events, affected farming activities.

Figure 3: Reasons rural households did not work normally on farming related activities in last 4 weeks, percent



It is worth noting that rural households in Ethiopia were affected by factors extending beyond COVID-19 in 2020. In addition to the pandemic, households in rural Ethiopia were affected by (i) locust invasions and (ii) price changes. First, rural Ethiopia was affected by two locust invasions, the first hit just before the pandemic and affected 57 percent of rural households. The second locust invasion affected the current agricultural season, hit between September and October 2020 and affected about 20 percent of rural households. The locust infestation was concentrated in the eastern parts of the country and covered areas of Afar, Amhara, Somali, and Tigray regions. It was also reported in Dire Dawa and Harare as well as in the Eastern parts of Oromia. Second, rural households were affected by price fluctuations. Several reports suggest increased prices of agricultural products related to limited and irregular transport, high prices of commodities (due to the depreciation and closure of borders) as well as limited wholesalers (border closures) (REACH, 2020), which reduced the demand and affected farmers income. This could explain that a higher share of households reported income losses even though COVID-19 struck post-harvest in 2020.

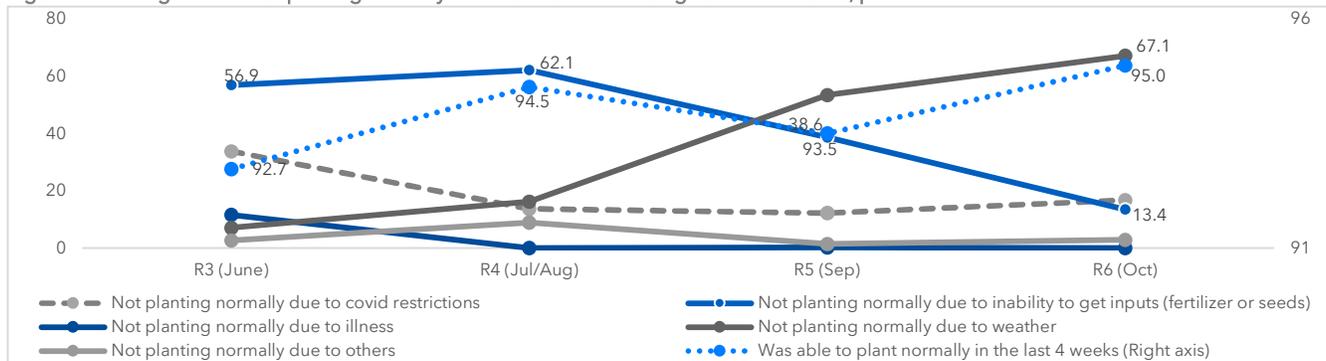
Thus far, we looked at all farming activities – growing crops and raising livestock – combined. In what follows we look at farming activities around planting crops and raising livestock separately⁴.

PLANTING ACTIVITIES



The vast majority of households (over 90 percent) were able to plant normally between June and October 2020 (right axes, Figure 4). Rural households that faced challenges during the planting cycle indicated to have been mainly affected by the inability to purchase fertilizers and seeds (left axis, Figure 4), especially in early months of the pandemic between June and August. Over time though, reasons related to the COVID-induced restrictions of movement of people and good subsided and other external events, such as the weather, seemed to be the dominant reason for not planting normally.

Figure 4: Farming households planting normally and reasons for not doing so in last 4 weeks, percent



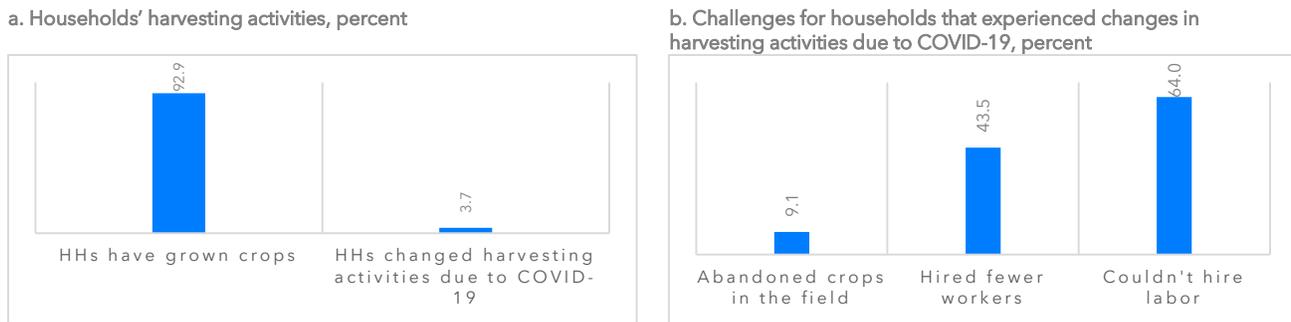
Three quarters of households who were not able to plant normally due to the inability to purchase fertilizers, seeds, and other agricultural inputs attributed this to unaffordability (lack of money or higher prices) as the main obstacle at the onset of the pandemic. Between July and August this affected more than 90 percent of households that faced

⁴ The employment module that was administered in rounds 1-7 include the questions on farming, covering growing crops and livestock. The agricultural module administered between rounds 3-6 asked separately about planting activities. Livestock activities are asked in rounds 5 and 9.

difficulties getting those inputs and were thus not able to plant normally. The IFDC indeed reported increases in the cost of transport and storage, limitations in the distribution through the voucher system, and closures of central stores for the same period (IFDC, 2020). In November 2020, when the planting season had largely ended and the harvesting season started, the lack of affordability affected fewer farming households (over 60 percent).

During the *meher* season (the main crop season in Ethiopia), most households in rural areas were growing crops (93 percent), only about 4 percent of which reported difficulties in their harvesting activities due to the pandemic (Figure 5). The main challenge faced by those households was the inability to hire workers as reported by 64 percent of them (Figure 5). Households' outlook for their agricultural output differs depending on whether they usually sell their products or use it for own consumption only. About half of households involved in agriculture sell their output. Among them, about 40 percent expect a better than usual production this year and 37 percent expect a smaller than usual harvest. In contrast, for households that usually do not sell their products, the outlook is somewhat bleak with only 2 in 10 households expecting a better than normal harvest of the main crop and 6 in 10 expecting a smaller than usual harvest.

Figure 5: Harvesting activities during COVID-19, percent, Round 9 (Jan 2021)



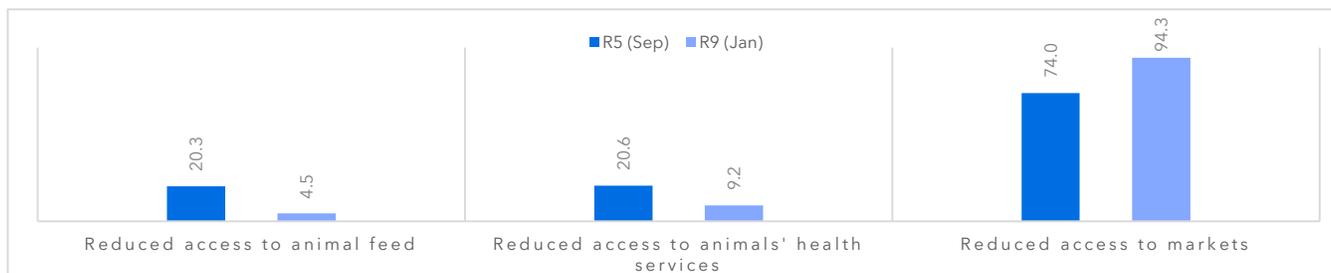
**LIVESTOCK
ACTIVITIES**



At the onset of the pandemic, more than 60 percent of households in rural areas and 14 percent in urban areas kept livestock, the majority of which kept cattle, sheep, goats and poultry. Over time, more households kept livestock, with 80 percent of households in rural areas keeping livestock in January 2021.

In September 2020, 7 percent of households engaged in livestock activities reported being affected by the pandemic. The main channels through which households' livestock activities were affected were reduced access to markets (74 percent), reduced access to animal feed (20 percent), and reduced access to animal health services (20 percent) (Figure 6). Three months later, in January 2021, fewer households reported being affected by COVID-19 (4 percent) with access to markets continuing as the main challenge.

Figure 6: Main channels through which COVID-19 affected livestock activities, percent



About half of households keeping livestock typically sell their livestock or livestock products. In September 2020, 36 percent of households expressed their desire to sell livestock and 90 percent of households that wanted to sell livestock were able to do so. Yet, there were (few) households that were not able to sell livestock (10 percent of those wanting to sell) due to a fall in prices (74 percent) and limited transportation (31 percent) (Figure 7).

Most households (90 percent) that wanted to sell livestock were able to, yet, many households faced lower prices than before the pandemic. Among households that were able to sell livestock, 37 percent did so at a lower price than usual (Figure 8) and only 25 percent received a higher price.

Figure 7: Reasons for not selling livestock, percent, Round 5

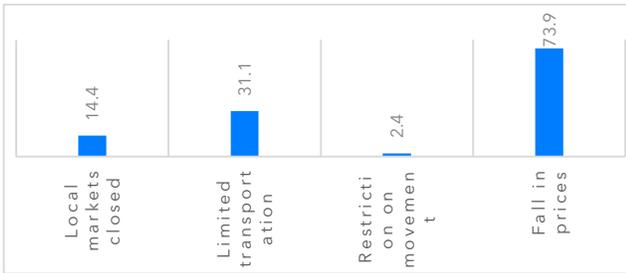
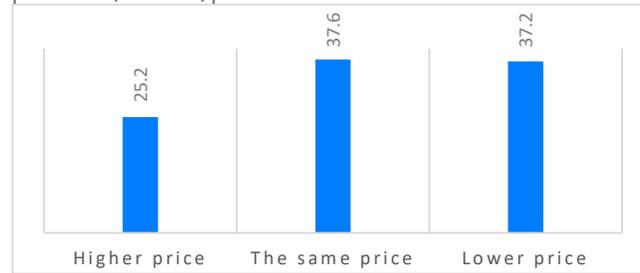


Figure 8: Households indicating livestock sales prices compared to pre-COVID, Round 5, percent



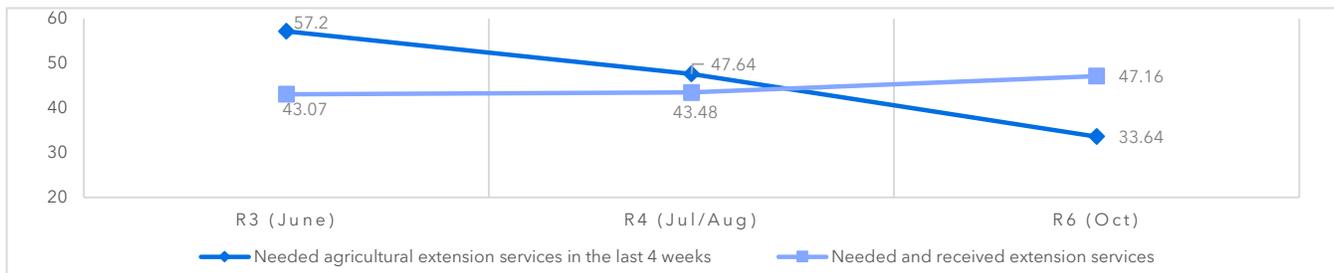
**ASSISTANCE
TO HOUSE-
HOLDS**



Though limited in magnitude, rural households have been affected by the COVID-19 pandemic. We now look at whether households engaged in the rural economy received assistance either through agricultural extension services or other means such as food aid or cash assistance.

The agricultural extension services system plays an important role in rural Ethiopia, promoting the adoption of improved farm technologies to increase productivity. Ethiopia has a vast network of public agricultural extension workers. During the pandemic, extension services were disrupted due to lockdown and mobility restrictions that affected training. Several months after the outbreak of COVID-19, group mobilization was changed from farm-to-farm to individual advice, which reduced the number of farmers trained per extension agent (De Roo et al., 2020). We document to what extent agricultural extension services were impacted by the pandemic. During the planting season, in June 2020, more than half of households engaged in farming activities indicated the need for agricultural extension services. Towards the end of the planting season, in October 2020, slightly fewer households were in need of extension services. Among households needing extension services, about 43 percent received them in June 2020, a proportion which slightly increased to 47 percent in October 2020 (Figure 9). In 2019, before the pandemic hit, 43 percent of farmers participated in extension services (ESS 2019). Among those households not receiving the service, one third indicated that extension services were not available, indicating that even pre-COVID, there was unmet demand.

Figure 9: Households need and receipt of agricultural extension services, percent



In April 2020, only about 10 percent of rural households received social assistance through any means, either the government, NGOs, or religious institutions, since the outbreak of the pandemic (Figure 10). In subsequent survey rounds, we asked households whether they received assistance in the 4 weeks preceding the interview date. We observe that assistance fluctuates between May 2020 and January 2021, mainly driven by changes in free food that households receive (Figure 11).

Figure 10: Households receiving assistance from any source, percent

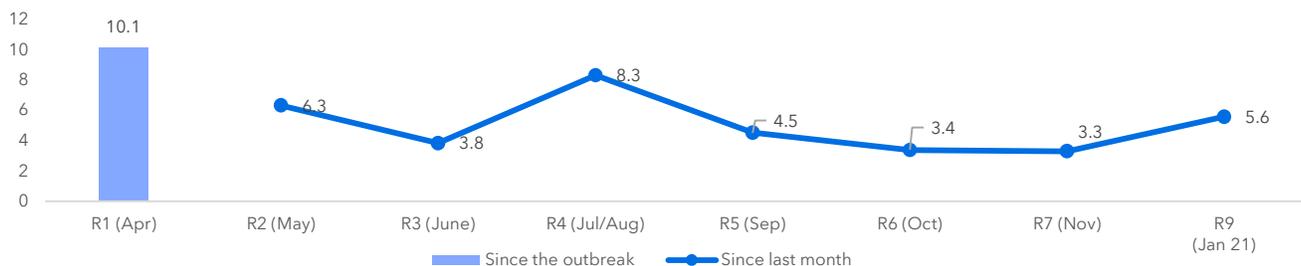
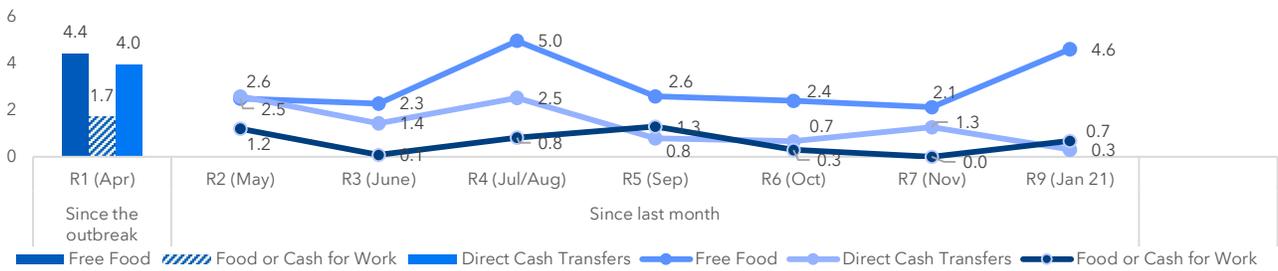


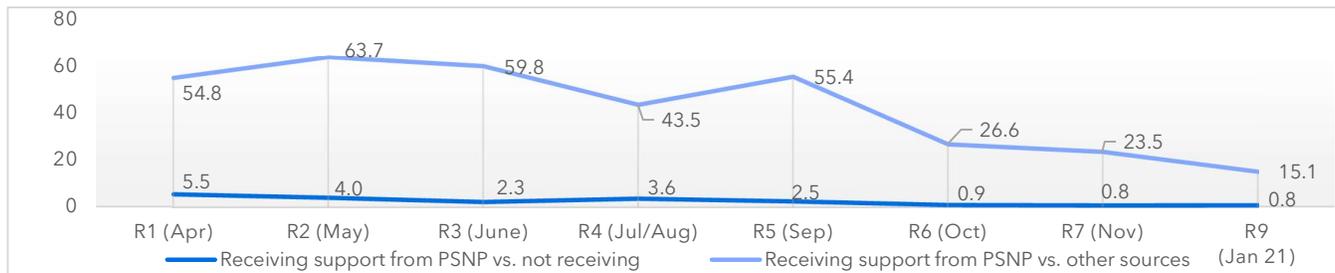
Figure 11: Households receiving assistance from any source, percent



One of the main channels of assistance in rural areas is the Productive Safety Net Program (PSNP), a large public safety net program, which aims at shifting chronically food-insecure rural people from recurrent humanitarian food assistance to a more secure and predictable, and largely cash-based form of social protection. The PSNP transfers cash or food to about 8 million people in rural Ethiopia suffering from food insecurity (World Bank, 2017), accounting for about 9 percent of the rural population. Yet, our results show that about 5 percent of rural households received assistance from the PSNP at the onset of the pandemic. The lower share of rural households in the HFPS participating in the safety net operation (5 compared to 8 percent) is likely a result of our survey only reaching households with access to a phone, households that are typically better-off compared to those without access to a phone and thus less likely to participate in the PSNP. Yet, we observe that the PSNP is the most important source of assistance in early months of the pandemic with over half of all households that receive assistance, receiving it through PSNP compared to other means or programs (Figure 12), showcasing the importance of the PSNP for rural households.

Despite its importance for rural households, we observe a large reduction in the share of households receiving assistance from PSNP over time and in November 2020, less than 1 percent of rural households received assistance through PSNP. This is related to the PSNP transfer schedule which stipulates that transfers are paid during the months of highest food insecurity or the non-agricultural season, mainly from mid-January to mid-July (Berhane et al, 2015) with transfers phased out in other months. The proportion of households reporting PSNP support reduced in the second half of the year, a period in which only includes households receiving Permanent Direct Support, or unconditional cash transfers (about 15 percent of PSNP beneficiaries or 1 percent of the rural population), continue receiving the benefit.

Figure 12: Households receiving assistance from PSNP, percent

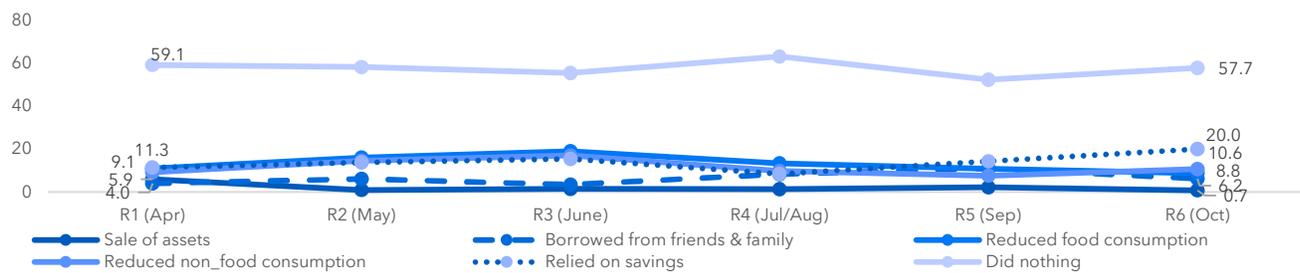


COPING STRATEGIES



As mentioned previously, 40 percent of rural households reported reductions in farming income since the onset of the pandemic in April 2020. Households suffering from less or no income were then asked what if any coping strategies they had applied to better manage the income reduction. More than half had not applied a coping strategy to compensate (Figure 13). About 11 percent of households relied on savings and the same proportion reduced the consumption of food. A slightly lower proportion of households (9 percent) reduced the consumption of non-food items. Only 6 percent of households sold their assets and a smaller proportion (4 percent) borrowed from family and friends. Over time, fewer households were affected from reductions in income (10 percent in October). Nevertheless, 60 percent of households that faced reduced income did nothing to cope with the loss. Finally, and in contrast to the onset of the pandemic, more households relied on savings towards the end of the year (20 percent). To put this into context, we compare coping strategies reported by urban households and observe that rural households are more vulnerable to shocks compared to urban households. For example, we observe that more rural households (10 percentage points more) do nothing while fewer rural households rely on savings, indicating that rural households struggle more to smooth consumption. Yet, when analyzing reductions in food consumption, a larger proportion of households in urban areas (between 16 and 28 percent) are affected compared to 10 percent in rural areas, likely explained by the availability of subsistence farming.

Figure 13: Rural households applying coping strategies, percent

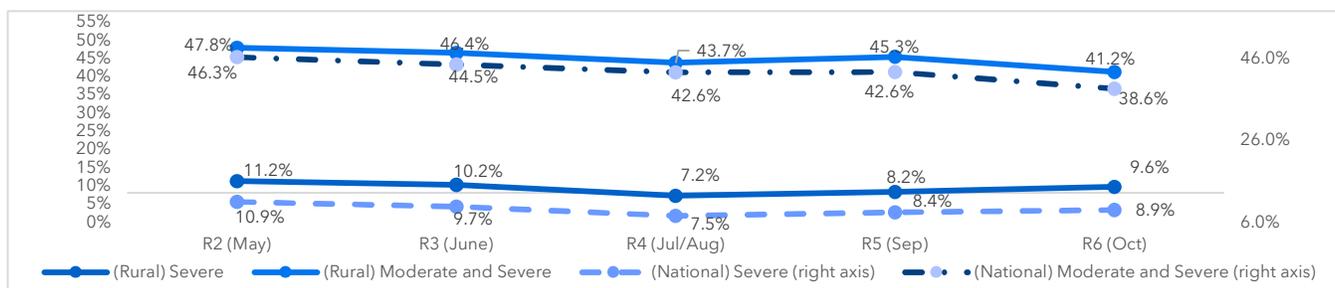


FOOD INSECURITY



The survey collected information on household food insecurity (using the Food Insecurity Experience Scale⁵) between May and October 2020, covering most of the planting period of the main agricultural season (April to August) and early harvest (September to October). During the pandemic, household food insecurity was experienced by 39 to 46 percent of households. Food insecurity is higher during the planting season and in rural areas (Figure 14). In May and June 2020, about 48 percent of the rural population reported experiencing moderate and severe food insecurity in the 30 days preceding the survey. Severe food insecurity alone is experienced by about one in 10 households. However, the food insecurity in rural areas could be understated because, as indicated earlier, this survey reached only those households with access to a phone which tend to be better off.

Figure 14: Food Insecurity Experience in Rural Areas, percent



CONCLUSIONS



Rural Ethiopia, where 80 percent of Ethiopians reside, has been resilient to the impacts of COVID-19. Though rural Ethiopia faced losses of income, stemming from interruptions in farming activities, induced by COVID-related restrictions to mobility of goods and people, at the onset of the crisis, losses in farming activities and income recovered quickly. For example, less than 10 percent of households that grew crops or raised livestock indicated that the pandemic affected their activities, even at the onset of the pandemic. Moreover, in November 2020, only 1 percent of households working in farming reported interruptions in the month prior to the survey.

The main channels through which the rural economy was affected were mobility restrictions at the onset of the crisis. With the ease of these restrictions, planting activities were affected by “regular” challenges in rural areas such as adverse weather conditions. Moreover, most households engaged in livestock activities were able to sell their livestock or livestock products during the pandemic, though few households were affected by low sales prices.

The largest adverse impact of the pandemic was felt in the early months of the pandemic with half of rural households experiencing income losses in April 2020. Yet, assistance provided to rural households was sparse with few households indicating to have received assistance from any source during the pandemic, a percentage that decreases the longer the pandemic lasts. The most important source of government support was through the Productive Safety Net Program, which supported the largest share of households, particularly during the early months of the pandemic, when more than half of all assistance came from this source.

⁵ Additional information on the Food Insecurity Experience Scale (FIES) can be found at: <http://www.fao.org/in-action/voices-of-the-hungry/fies/en/>

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BOX: SURVEY METHODOLOGY

The HFPS-HH sample is a subsample—households with access to a phone—of those interviewed in 2019 for the Ethiopia Socioeconomic Survey (ESS), which covers urban and rural areas in all regions of Ethiopia. Phone penetration in rural Ethiopia is low; about 40 percent of rural households have access to a phone compared to over 90 percent of urban households. This not only means that the rural sample is smaller but there is also a systematic difference between households that have access to a phone and those that have not. Phone-owning households are better off in terms of total consumption, educational attainment, access to improved water and sanitation, access to assets, and access to electricity. The sample of the HFPS-HH is therefore representative only of households that have access to phones in urban and rural Ethiopia. The respondent is typically the household head; where that person cannot be reached despite numerous call-backs, another knowledgeable household member is selected as the respondent.

In Round 1, in April 2020, the HFPS-HH called all the 5,374 households that in the ESS had provided a valid phone number; of these, 3,249 households consented to be interviewed. The subsequent rounds attempted to reach the same 3,249 households. Table 1 shows the number of interviews completed in rural and urban areas.

Table 1: Number of Completed Interviews by Round

	Round 1 (Apr 22– May 13)	Round 2 (May 14– June 3)	Round 3 (June 4– 26)	Round 4 (July 27– Aug 14)	Round 5 (Aug 24– Sep 17)	Round 6 (Sep 21– Oct 13)	Round 7 (Oct 19 – Nov 10)	Round 8 (Dec 1 – Dec 21)	Round 9 (Dec 28 – Jan 21)
Rural	978	940	934	838	775	760	716	576	553
Urban	2,271	2,167	2,124	2,040	1,995	1,944	1821	1646	1524
National	3,249	3,107	3,058	2,878	2,770	2,704	2537	2222	2074